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ABSTRACT

This report describes 8-year projections of state and local government fiscal gaps and surpluses, suggesting that even if state and local governments close their current budget gaps with entirely recurring actions, most states will face continuing difficulty financing current services with existing revenue structures and will not have resources for real higher education spending increases. Given that state and local governments have increased real per-capita spending significantly in each of the last 5 decades, citizens will have to either reduce their need for government services or support changes in revenue structures to finance new growth. Under the "base case" projections presented in this document, within 8 years from the time state and local governments close current budget shortfalls, they are likely to face gaps that for the nation overall approximate 3.4 percent of revenue. Over 40 states face gaps under these assumptions, with 12 facing gaps of 5 percent or more of revenue. Gaps vary widely across states, depending on economic and demographic forecasts and revenue and spending structures. States that do not have income taxes are more likely to face large gaps. For the nation overall, higher education spending is projected to grow 40 percent over 8 years, considerably slower than the 47.4 percent growth projected for total spending. (SM)

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State Spending for Higher Education in the Coming Decade

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State Spending for Higher Education in the Next Decade

Executive Summary

State and local governments are in the midst of a severe fiscal crisis. Over the next two to three years, they will cut spending, increase taxes, and employ other techniques to close large budget gaps. After they restore balance, what will happen? Will new gaps reappear due to a mismatch between underlying revenue and expenditure structures, or will state and local finances boom as in the late 1990s, allowing governments again to increase spending, cut taxes, and rebuild reserves?

This report suggests that even if state and local governments close their current budget gaps with entirely recurring actions, rather than gimmicks that provide only temporary relief, most states will face continuing difficulty financing current services with existing revenue structures, and will not have resources for real increases in spending. Given that state and local governments have increased real per-capita spending significantly in each of the last five decades, this suggests citizens will have to either scale back their appetite for government services or support changes in revenue structures to finance new growth.

Under the "base case" projections presented in this document, within eight years from the time state and local governments close current budget shortfalls they are likely to face gaps that for the nation as a whole approximate 3.4 percent of revenue. A total of 44 states face gaps under these assumptions, with 12 states facing gaps of 5 percent or more of revenue. While these gaps are smaller than the current crisis-induced gaps in many state budgets that have resulted from swift sharp shifts in the economy and financial markets, they suggest that even after this crisis states and local governments will face continuing stress.

There are two main reasons for difficulty. First, tax revenue will not grow as fast as the economy due to (1) projections of balanced economic growth that, unlike the late 1990s, does not generate annual surges in capital gains income, (2) significant slowing of sales tax revenue due to continued shifts in consumption from goods to lightly taxed services, and revenue losses due to difficulty collecting tax on Internet-related transactions, and (3) growth in excise taxes that does not keep up with overall economic growth. Second, spending in many states will be boosted by rapid growth in Medicaid, the health insurance program for the poor and medically needy.

Income taxes tend to grow more quickly than income, and as a result, states that do not have income taxes generally are more likely to face large gaps, other things being equal. Five of the 9 states without a comprehensive income tax have projected gaps that place them in the "top 10."

Under many alternative assumptions the outlook would worsen. For example, if state and local governments are more consistent with past patterns than assumed here, and increase

real per-pupil spending by 1.5 percent annually (rather than 0 percent, as assumed in the base-case projections), then the average projected gap would increase from 3.4 percent to 6.2 percent and 49 of 50 states would face gaps. Under some plausible assumptions, however, the outlook would improve slightly. For example, if Medicaid growth were slower by one percentage point across the board, the average gap would be reduced from 3.4 percent to 2.1 percent and only 37 states would face gaps.

Finally, although not simulated here, if states solve current deficits through significant use of nonrecurring revenue or nonrecurring spending reductions – and there is some evidence of this already - the outlook would worsen considerably.

Introduction

This report describes 8-year projections of state and local government fiscal gaps and surpluses, prepared using a methodology similar to that used in reports prepared by Hal Hovey for the National Education Association (*The Outlook for State and Local Finances: The Dangers of Structural Deficits For The Future of Public Education*, 1998) and the National Center for Public Policy and Higher Education (*State Spending for Higher Education in the Next Decade*, July 1999).

The sections below describe:

- General framework for the projections
- Summary results
- Data and methods
- Comparison to the prior projections
- Sensitivity analysis

General Framework for the Projections

The projections examine the fiscal outlook for the state and local government sector in each of the 50 states, for an 8-year forecast period, under several scenarios. The projections are based on state-specific economic and demographic forecasts from Economy.com and from federal agencies, on data describing the structure of revenue and expenditures in each state, and on explicit assumptions about the relationship between the economy and state and local government revenue and spending.

We look at state and local governments combined because many decisions about how to finance government are made in the context of overall state and local finances rather than just state or local governments. For example, in recent years, many states including Kentucky, Massachusetts, Michigan, Oregon, and several others have been increasing state government spending on elementary and secondary education partly in an effort to reduce pressure on local tax bases. To the extent these actions drive up state spending, they may actually reduce local spending, and so in thinking about the impact on taxpayers we need to think about the combined impact on state and local finances.

The expenditure projections assume that states finance "current services" spending – that state and local governments maintain their current real spending per unit of "workload" but adjust spending to reflect changes in workload and prices. As a result, the expenditure projections are likely to be far more conservative than projections that reflect "desired" spending – what state and local governments might spend if their finances were relatively unconstrained. State and local governments have increased real per-capita expenditures substantially in each of the last five decades, suggesting that a "no real growth" assumption is unrealistic for planning purposes, although it is useful for pedagogical purposes.

The revenue projections reflect revenue structures in each state as of fiscal year 2000, and incorporate assumptions about how taxes respond to economic growth and the impact of Internet-related transactions on sales tax revenue.

The projections start from a point of presumed balance in the initial year. As such, they abstract from the current fiscal crisis and assume that states close their current budget gaps with solutions that are largely recurring. The projections therefore ask the question, what would happen to state and local government finances *after* states close their current budget gaps? They address issues relating to underlying revenue and spending structures. Therefore, the gaps presented in this document are in addition to budget gaps that states currently face.

The numbers described below are not projections of actual surpluses or deficits. They show imbalances in many states – sometimes potential surpluses, and often potential deficits. In the real world, state and local governments must strive to balance their budgets, and they generally will take action to close potential gaps, or to cut taxes or raise spending if they face potential surpluses. Thus actual budgets eight years from now are likely to be balanced in most cases. The potential surpluses or deficits shown below, however, provide insights into pressures that governments may face.

Summary Results

Under the base-case scenario, for the nation as a whole, state and local governments in aggregate are projected to face a gap of 3.4 percent of revenue at the end of eight years. Personal income, a broad measure of the economy, is projected to grow at an annual average rate of 5.1 percent. State and local spending needed to maintain current services is projected to grow a bit more slowly than the economy, at an average annual rate of 5.0 percent. Revenue, by contrast, is projected to grow considerably more slowly than the economy, at an annual average pace of only 4.5 percent.

The gaps (and surpluses) vary widely across states, depending on economic and demographic forecasts and revenue and spending structures in each state. Table 1 shows state-by-state fiscal gaps or surpluses at the end of 8 years as a percentage of revenue in year 8, under the base-case assumptions described within.

Table 1

State & Local Surplus (Gap) After 8 Years
As % of Revenue

Vermont	3.1	Virginia	(3.0)
North Dakota	2.2	Georgia	(3.2)
Maine	1.3		
New Jersey	0.6	United States	(3.4)
Delaware	0.2		
Wisconsin	0.0	Kentucky	(3.4)
Kansas	(0.3)	Arkansas	(3.5)
Montana	(0.4)	Hawaii	(3.6)
Maryland	(0.5)	New Mexico	(3.6)
New Hampshire	(0.6)	Iowa	(3.7)
Arizona	(0.7)	New York	(3.8)
Massachusetts	(0.8)	Illinois	(4.2)
Utah	(0.8)	Missouri	(4.7)
Oklahoma	(1.3)	Washington	(4.9)
Oregon	(1.3)	Idaho	(5.0)
Nebraska	(1.4)	Indiana	(5.2)
Ohio	(1.4)	North Carolina	(5.6)
South Dakota	(1.7)	Texas	(5.7)
Michigan	(1.7)	Florida	(5.7)
Rhode Island	(1.9)	South Carolina	(6.3)
Minnesota	(1.9)	Wyoming	(7.8)
Colorado	(2.3)	Mississippi	(8.6)
Alaska	(2.4)	Louisiana	(8.8)
California	(2.5)	Alabama	(9.2)
Connecticut	(2.9)	Nevada	(9.2)
West Virginia	(2.9)	Tennessee	(9.7)
Pennsylvania	(2.9)		

Only five states show a potential surplus and one shows exact balance. The remaining 44 states all show potential deficits, ranging from 0.3 percent of revenue in Kansas to 9.7 percent in Tennessee. Of the 10 states with the largest projected gaps, 5 do not have an income tax (Florida, Nevada, Tennessee, Texas, and Wyoming); by contrast 4 of the other 40 states do not have an income tax.

Table 2 shows the projected 8-year percentage growth for higher education expenditures and total expenditures, plus the extent to which annual average higher education growth exceeds (or is less than) growth in total expenditures. I use the terminology of the 1999 Hovey report and call this difference the "higher education advantage".[1] In most states these numbers are negative – higher education expenditures are expected to grow less quickly than total state and local government spending. The main reason total spending is projected to grow faster than higher education spending is that Medicaid is expected to

[1] Note that in these numbers, annual average growth takes into account the impact of compound growth. The 1999 report did not take compounding into account and as a result it would have shown slightly higher differences in annual average growth than shown here.

grow at approximately 10 percent annually, driving up overall spending growth considerably.

Table 2

Higher Education Advantage After 8 Years

	Annual Average Advantage for Higher Education	Eight-Year Spending Growth Rate	
		All Programs	Higher Education
Nevada	1.9	67.5	93.6
New Jersey	1.3	39.5	54.1
Virginia	0.6	47.4	54.3
Connecticut	0.4	40.0	44.6
Massachusetts	0.3	39.9	43.6
Illinois	0.3	39.2	42.5
Arizona	0.3	59.9	63.1
Pennsylvania	0.1	37.5	38.3
Delaware	(0.1)	42.6	41.9
Colorado	(0.2)	50.3	48.5
Maryland	(0.2)	42.6	40.8
Rhode Island	(0.2)	38.9	37.0
Michigan	(0.3)	37.5	34.2
California	(0.3)	52.2	48.5
North Carolina	(0.3)	55.3	51.3
Florida	(0.6)	57.5	51.0
New York	(0.6)	44.1	37.4
Alaska	(0.7)	41.8	34.7
United States	(0.7)	47.4	40.0
Ohio	(0.7)	40.2	32.7
New Hampshire	(0.7)	46.8	39.1
Missouri	(0.7)	43.6	35.6
Tennessee	(0.9)	51.9	41.5
Indiana	(1.0)	45.8	35.3
Wisconsin	(1.1)	38.9	27.9
Georgia	(1.0)	59.2	47.3
Kentucky	(1.1)	47.9	35.5
Texas	(1.2)	56.1	42.7
Iowa	(1.5)	41.7	26.6
Minnesota	(1.5)	42.1	27.0
South Carolina	(1.4)	59.4	43.8
Washington	(1.5)	51.0	34.5
Kansas	(1.7)	39.3	22.6
Oklahoma	(1.7)	40.5	23.5
Arkansas	(1.7)	46.9	28.5
Hawaii	(1.9)	43.9	23.9
West Virginia	(2.0)	43.7	22.7
Oregon	(1.9)	52.5	31.4
Nebraska	(2.1)	40.8	19.5
Montana	(2.2)	36.8	15.1
Alabama	(2.0)	49.6	27.8
Maine	(2.2)	42.5	20.1
Utah	(2.1)	51.2	28.7
Idaho	(2.2)	54.9	31.0
Mississippi	(2.2)	52.9	28.9
Vermont	(2.9)	37.8	10.2
Louisiana	(2.7)	46.7	18.8
North Dakota	(3.3)	33.7	3.3
South Dakota	(3.2)	38.1	7.2
New Mexico	(3.0)	53.4	21.9
Wyoming	(4.5)	44.1	1.6

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For the nation as a whole, higher education spending is projected to grow 40 percent over the 8-year period, considerably slower than the 47.4 percent growth projected for total spending – about 0.7 percent slower per year. Higher education is expected to grow faster than total spending in only 8 states and slower than the total in 42 states.

Data and Methods

The projections generally follow the approach used in the two Hovey reports, with any significant differences noted below. We begin by developing "base year" revenue and expenditure estimates for the state and local government sector in each of the 50 states. The starting point is state-specific revenue and expenditure data from the U.S. Bureau of the Census for the latest year available, the 1999 fiscal year. Revenue and expenditure items are aggregated into the following categories:

Table 3

Revenue and Expenditure Categories Used in the Model

Revenue categories

- General revenue
  - Intergovernmental revenue
    - Intergovernmental revenue, Medicaid
    - Intergovernmental revenue, Other
  - Own-source revenue
    - Taxes
      - Personal income tax
      - General sales taxes
      - Property taxes
      - Excise taxes
      - Corporate income taxes
      - Other taxes
    - Charges and miscellaneous revenue

Expenditure categories

- General expenditures
  - Elementary and secondary education
  - Medical vendor payments (Medicaid)
  - Higher education
  - Hospital expenditures
  - Other expenditures

The individual revenue and spending items are then "walked forward" three years to the initial base year, using information on economic and demographic trends between 1999 and 2002, and the projection assumptions described below. Following the approach

Hovey used, revenue items are then adjusted pro-rata to ensure that revenue and expenditures are equal in the base year.

The model then projects individual items of revenue and expenditure forward from this balanced base year under a set of economic, demographic, and projection assumptions designed to reflect current revenue structures and current services.

Summary of Economic and Demographic Assumptions

The economic and demographic assumptions were obtained primarily from the June 2002 economic forecast prepared by Economy.com, a major economic forecasting firm. The assumptions are based on the assumption that the current recession will be relatively mild and brief and, after the recovery, will be followed by a period of stable growth. The Economy.com economic and demographic assumptions were supplemented with elementary and secondary enrollment projections and higher education full-time equivalent enrollment projections provided by the National Center for Education Statistics, as well as by information from the Centers for Medicare and Medicaid services on the likely path for Medicaid expenditures.

The table below shows key economic and demographic assumptions underlying the results:

Table 4

Key Economic and Demographic Assumptions - United States Averages

	Average Annual Percentage Growth	Total 8-year Growth
Real GDP	3.1	27.9
Personal income (nominal)	5.1	48.5
Retail sales (nominal)	3.8	34.9
General inflation (personal income deflator)	2.5	21.5
Services inflation (chain-type price index)	3.4	30.3
Population	0.8	7.0
- Population age 0-19	0.4	3.0
- Population age 20-64	0.9	7.8
- Population age 65+	1.5	12.6
K-12 public school enrollment	(0.0)	(0.1)
Higher education enrollment	1.3	11.3

SOURCES: Economy.com, National Center for Education Statistics, Rockefeller Institute of Government

The state-by-state forecasts vary considerably. For example, while personal income is expected to grow by a total of 48.5 percent, projected growth ranges from 36.9 percent in Pennsylvania to 72.3 percent in Nevada. Similarly, the growth in higher education full-time enrollment is expected to be 11.3 percent on average, ranging from a decline of 19.2 percent in Wyoming to an increase of 54.0 percent in Nevada.

Revenue Assumptions

Personal income taxes

Personal income taxes are assumed to grow at rates that reflect each state's personal income growth and elasticity of the state's income tax to personal income. Elasticity is defined for this purpose as the percentage change in income tax revenue divided by the percentage change in personal income. When elasticity exceeds one, as it does for most income taxes because of their progressive nature, revenue will grow faster than personal income. Thus, an income tax with an elasticity of 1.10 would grow 10 percent faster than personal income – when personal income grows 5 percent, the tax would grow 5.5 percent.

Elasticity estimates vary by state and year. Elasticity for each state and year was estimated based on the tax-year 2000 joint return tax structure by simulating income tax liability in the given year and in the prior year using state-specific data on the distribution of tax returns and income for 2000 from the Statistics of Income branch of the Internal Revenue Service (obtained from the file "00in54cm.xls"), assuming that the number of returns grows at the same rate as state population and that average adjusted gross income grows at the same rate as average personal income.

Using this method, the average elasticity across states is approximately 1.13, and varies by state and year.

General sales taxes

Before accounting for losses related to difficulties in collecting taxes on Internet-related transactions, sales taxes in each state are expected to grow at the same rate as retail sales in the state. The resulting pre-loss estimates are then reduced to reflect estimates of sales tax losses due to electronic commerce, based on estimates by professors Donald Bruce and William Fox of the University of Tennessee (Donald Bruce and William Fox, *State and Local Sales Tax Revenue Losses from E-Commerce: Updated Estimates*, Center for Business and Economic Research, University of Tennessee, September 2001). This was done by computing state-specific annual rates of incremental "New E-Commerce Loss" from Tables 3, 4, and 5 in the cited publication, and subtracting this incremental loss from each state's pre-loss sales tax estimate.

Other own-source revenue

Property taxes are assumed to grow at the same rate as personal income in each state, following the assumption by Hovey that over the longer term property values are likely to grow at the same rate as the overall economy.

Excise taxes generally are imposed on the quantities of goods sold and therefore do not necessarily rise as prices rise. Consumption tends to rise over time for some taxed commodities such as motor fuel, but falls over time for other commodities such as

cigarettes. The model assumes that overall, excise taxes in each state grow at the same rate as population.

Corporate income taxes are assumed to grow at the same rate of corporate profits – an average annual rate of 4.8 percent, for total growth of 45 percent. This would be a dramatic reversal of the downward trend of recent years.

Other taxes are assumed to grow at the same rate as each state's economy, as measured by personal income.

Charges and miscellaneous revenue are assumed to rise with the number of people and inflation in the prices of goods that government purchases.

Intergovernmental revenue from the federal government

Intergovernmental revenue is divided into two categories: revenue related to Medicaid, which is an entitlement, and all other revenue from the federal government.

Medicaid related-revenue is estimated in the initial year by multiplying each state's Federal Medical Assistance Percentage (FMAP) for federal fiscal year 2000 by its medical vendor payments (a Census Bureau measure that is close in concept to Medicaid) in the initial year. This intergovernmental revenue, which is essentially reimbursement for a portion of Medicaid expenditures, is then assumed to rise at the same rate as spending on medical vendor payments.

All other intergovernmental revenue from the federal government is assumed to remain constant in real per-capita terms, growing at the rate of population growth plus general inflation. This yields an average annual growth rate of approximately 3.3 percent. This appears optimistic relative to the 2.7 percent annual growth in discretionary spending anticipated in the federal Deficit Control Act, as reflected in projections of the Congressional Budget Office (see *The Budget and Economic Outlook: Fiscal Years 2003-2012*, Congressional Budget Office, January 2002, p. 69), but as CBO notes, those projections may be too low.

Expenditure Assumptions

Prices of government purchases

As Hovey and other analysts have noted, government activities are very labor intensive, and real wages of government workers tend to rise over time, as they do for private sector workers. The model uses essentially the same assumption as Hovey to deal with this, assuming that real wages rise by 0.9 percent annually, consistent with the increase in the prices of services over the last decade relative to overall goods and services. Consistent with Hovey's approach, the model assumes that the wage share of spending on elementary and secondary education is 75 percent, the share for higher education is 65 percent, and the share for other state and local government spending also is 65 percent.

Elementary and secondary education

Real per-pupil expenditures are assumed to remain constant over the projection period, but total spending grows, reflecting changes in the number of pupils. Because the "baby boom echo" from baby boomers' children is now leaving high school and entering college, pupil enrollment is projected by the National Center for Education Statistics to remain relatively flat, but with significant variation from state to state. The table below shows these projections.

Table 5

Projected % Growth in Elementary and Secondary Enrollment

2002 to 2010

Idaho	11.2	Maryland	(1.7)
Hawaii	8.9	Indiana	(1.7)
New Mexico	8.3	Alabama	(1.9)
Alaska	8.1	New Jersey	(1.9)
Wyoming	7.9	Mississippi	(2.0)
Utah	7.1	South Carolina	(2.2)
Arizona	5.8	New Hampshire	(2.4)
California	5.7	Louisiana	(2.4)
Nevada	5.4	Missouri	(2.5)
Texas	4.8	Wisconsin	(3.0)
Colorado	3.7	North Carolina	(3.1)
Montana	3.2	Arkansas	(3.1)
Georgia	2.6	Minnesota	(3.5)
Virginia	1.1	Vermont	(4.0)
South Dakota	0.8	Iowa	(4.1)
Washington	0.7	Ohio	(4.3)
Oregon	0.2	Oklahoma	(4.3)
Tennessee	0.1	Pennsylvania	(4.6)
		North Dakota	(4.7)
United States	(0.1)	New York	(4.9)
		Maine	(4.9)
Kentucky	(0.7)	Michigan	(5.1)
Florida	(0.7)	Rhode Island	(5.1)
Nebraska	(0.7)	West Virginia	(5.7)
Delaware	(0.9)	Connecticut	(6.2)
Kansas	(1.1)	Massachusetts	(6.3)
Illinois	(1.4)		

SOURCE: Projections of Education Statistics to 2012
National Center for Education Statistics, Table 4

Medicaid

Medical costs have been rising far more rapidly than the general price level, reflecting rapid growth in prescription drug costs, expensive new technologies, and a general

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absence of market incentives to constrain costs. Medicaid is projected to grow at approximately 10 percent per year, or 9 percent per capita, consistent with projections from the former Health Care Financing Administration (now the Centers for Medicare and Medicaid Services), with growth by eligibility group as follows:

	% Growth In Spending Per Enrollee
Elderly	8.0
Disabled	10.0
Children	10.0
Adults	9.0
Overall	9.0

Medical vendor payments are not broken down by eligibility groups, and so they were broken down on an estimated basis using data from the Centers on Medicare and Medicaid services for 1998 (the latest year available) on the distribution of Medicaid expenditures by eligibility group.

The number of elderly enrollees is assumed to grow at the same rate as a state's population aged 65 and older, the number of disabled is assumed to grow at the overall population growth rate, the number of children at the rate of the population aged 0-19, and the number of adults at the rate of the population aged 20-64.

Higher education

Higher education full-time-equivalent enrollment in total is expected to grow by 11.3 percent, as forecasted by the National Center for Education Statistics, *Projections to 2012*, Table 22. NCES does not project FTE enrollment by state, but they do forecast the number of high-school graduates by state, and the state-by-state distribution of FTE enrollment growth is assumed to be the same as the distribution of high school graduates. These assumptions yield the following projections of growth in FTE enrollments by state.

Table 6

Projected % Growth in Higher Education Full-Time Enrollment
2002 to 2010

Nevada	54.0	Alaska	7.2
Arizona	29.8	Washington	7.0
Virginia	22.8	Michigan	6.8
New Jersey	22.6	Ohio	5.6
North Carolina	20.4	Oregon	4.5
Florida	20.2	Idaho	4.2
Colorado	18.1	Mississippi	2.6
California	18.1	Utah	2.4
Georgia	17.2	Arkansas	2.3
Connecticut	15.1	Wisconsin	1.8
South Carolina	14.4	Alabama	1.7
Massachusetts	14.2	Minnesota	1.0
Texas	13.6	Iowa	0.7
Illinois	13.4	Hawaii	(1.4)
Delaware	12.9	Oklahoma	(1.7)
Tennessee	12.6	West Virginia	(2.4)
Maryland	12.0	Kansas	(2.5)
		New Mexico	(3.0)
United States	11.3	Maine	(4.4)
		Nebraska	(4.9)
New Hampshire	10.7	Louisiana	(5.4)
Pennsylvania	10.1	Montana	(8.4)
New York	9.4	Vermont	(12.3)
Rhode Island	9.0	South Dakota	(14.7)
Missouri	7.9	North Dakota	(17.8)
Kentucky	7.8	Wyoming	(19.2)
Indiana	7.6		

Other expenditures

Hospital expenditures are projected to grow at the same rate as medical vendor payments. All other expenditures are assumed to remain constant in real per-capita terms – growing at the rate of population plus prices for government purchases, the same assumption as in the Hovey reports.

Comparison to the Hovey Reports

In general, these results are less dire than Hal Hovey's although the broad conclusions are similar – most states will face difficulty financing higher education and other services in the coming 8 years. Forty-four states face some sort of "fiscal gap," compared with 39 states in the Hovey numbers (see Table 1). The average U.S. gap is 3.4% of revenue,

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versus 3.8% in Hovey's projections – remarkably similar given the passage of four years since the last modeling effort. The table below shows some of the significant differences in assumptions and results between the Hovey projections and the current projections:

Table 7

Key Differences Between Current Report and Hovey Reports
United States Averages

	Current Report	Hovey Reports	
Total 8-year growth:			
Personal income (nominal)	48.5	36.5	
General inflation	21.5	24.5	
State and local government purchases	30.3	33.2	*
Population	7.0	7.3	*
K-12 public school enrollment	(0.1)	8.6	
Higher education enrollment	11.3	16.6	
Average Medicaid growth per enrollee	9.0	5.0	
Other key assumptions:			
Average income tax elasticity	1.13	1.22	
Summary results - Total 8-year growth:			
Revenue % change	42.5	34.5	*
Spending % change	47.4	39.6	
Overall revenue elasticity	0.877	0.962	
Medicaid spending	118.5	58.9	
Higher education spending	40.0	47.8	
K12 spending	25.9	37.6	
Other spending	35.0	35.9	

* Estimated by Rockefeller Institute from information provided in prior reports

As the table shows, the current projections contemplate slightly faster economic growth (after the recession ends), slower inflation, substantially slower growth in elementary and secondary education enrollment, slower growth in higher education enrollment, slower income tax growth relative to the economy, and much, much faster growth in Medicaid expenditures per enrollee. The result of these differences in assumptions is that, on average, revenue is projected to grow faster than before, as is spending, with the gap between them remaining about the same as in Hovey's numbers. Although K-12 and higher education spending are projected to grow more slowly than in the earlier projections, faster Medicaid growth more than makes up the difference.

Although the net difference for the nation as a whole is not large – 3.4 percent gap versus 3.8 percent gap - there are large differences in individual states. The following table compares the Hovey gaps with those projected here, sorted by absolute value of the gap as a percentage of revenue.

Table 8

Current Projected Gaps Compared with Hovey's Projected Gaps

	% Gap Per This Model	Hovey % Gap	Current Minus Hovey Gap	Absolue Value Of % Gap
Alaska	(2.4)	(16.4)	14.0	14.0
Hawaii	(3.6)	(15.1)	11.5	11.5
Arizona	(0.7)	(10.5)	9.9	9.9
Nevada	(9.2)	(18.3)	9.1	9.1
New Mexico	(3.6)	(12.0)	8.4	8.4
Idaho	(5.0)	(13.2)	8.2	8.2
Vermont	3.1	(4.6)	7.7	7.7
New Hampshire	(0.6)	(8.2)	7.6	7.6
Maryland	(0.5)	(7.1)	6.6	6.6
Mississippi	(8.6)	(2.0)	(6.6)	6.6
Iowa	(3.7)	2.7	(6.4)	6.4
Louisiana	(8.8)	(2.5)	(6.3)	6.3
Montana	(0.4)	(5.7)	5.3	5.3
Colorado	(2.3)	(7.0)	4.7	4.7
Alabama	(9.2)	(4.8)	(4.4)	4.4
New York	(3.8)	0.3	(4.1)	4.1
Kentucky	(3.4)	0.5	(3.9)	3.9
New Jersey	0.6	(3.3)	3.9	3.9
Illinois	(4.2)	(0.4)	(3.8)	3.8
Virginia	(3.0)	(6.8)	3.8	3.8
South Dakota	(1.7)	(5.0)	3.3	3.3
Georgia	(3.2)	(6.5)	3.3	3.3
Connecticut	(2.9)	0.4	(3.3)	3.3
Delaware	0.2	(3.0)	3.2	3.2
Utah	(0.8)	(4.0)	3.2	3.2
Florida	(5.7)	(8.8)	3.1	3.1
Missouri	(4.7)	(1.8)	(2.9)	2.9
Nebraska	(1.4)	1.5	(2.9)	2.9
Wyoming	(7.8)	(10.6)	2.8	2.8
Ohio	(1.4)	0.9	(2.3)	2.3
Michigan	(1.7)	0.4	(2.1)	2.1
Texas	(5.7)	(7.8)	2.1	2.1
Minnesota	(1.9)	0.1	(2.0)	2.0
South Carolina	(6.3)	(4.3)	(2.0)	2.0
North Carolina	(5.6)	(3.7)	(1.9)	1.9
Washington	(4.9)	(6.7)	1.8	1.8
Kansas	(0.3)	(1.9)	1.6	1.6
Pennsylvania	(2.9)	(1.3)	(1.6)	1.6
Wisconsin	0.0	(1.5)	1.5	1.5
West Virginia	(2.9)	(1.4)	(1.5)	1.5
North Dakota	2.2	0.9	1.3	1.3
Oregon	(1.3)	(0.1)	(1.2)	1.2
Arkansas	(3.5)	(2.3)	(1.2)	1.2
Maine	1.3	0.1	1.2	1.2
Rhode Island	(1.9)	(2.9)	1.0	1.0
Oklahoma	(1.3)	(2.1)	0.8	0.8
Massachusetts	(0.8)	-	(0.8)	0.8
Tennessee	(9.7)	(9.1)	(0.6)	0.6
Indiana	(5.2)	(5.7)	0.5	0.5
United States	(3.4)	(3.8)	0.4	0.4
California	(2.5)	(2.8)	0.3	0.3

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The biggest differences are in states at the extremes. For example, in Hovey's numbers, Nevada (4th from top in the table) had the worst gap, at a whopping 18.3% of revenue but the Nevada gap in these numbers is "only" 9.2 percent of revenue. Similar results obtain for several other states – in several cases the gaps Hovey predicted are much greater than the gaps predicted here. Significant differences in the other direction are rare.

There is no single explanation for the large differences, but one common thread is that Economy.com projects faster economic growth in many states than did Hovey. For example, Economy.com forecasts that Nevada personal income will grow 72 percent over the 8-year period, whereas the Hovey projections implicitly assume that Nevada personal income would grow only 55 percent. (Hovey did not publish his personal income projections, but they can be inferred from other numbers he did publish.) As a result, even though my revenue forecasting assumptions are more conservative than Hovey's, my projections call for Nevada's revenue to grow 5.1 percent faster than Hovey's.

The projections here call for Nevada spending to grow 7.9 percent slower than in Hovey's projections, largely as a result of dramatically different assumptions about education enrollments: Hovey forecasted 31.5 percent growth in K-12 enrollments while my forecast, relying on current NCES projections, calls for 5.4 percent growth. Similarly, Hovey's forecast called for 69.5 percent growth in high school graduates (driving higher education spending growth), while my numbers, based on current NCES projections, call for 54 percent growth. Part of this difference stems from the later time period examined in these projections, and much of it appears to reflect reevaluation by NCES of the outlook for enrollment growth.

The pattern of differences is similar in many of the other states with big differences from Hovey's numbers. For example, in Alaska, Hawaii, and Arizona, the three states with the largest differences from the earlier Hovey numbers, Economy.com forecasts much faster personal income growth than did Hovey – faster by 20, 24, and 23 percent, respectively. As a result, in each case revenue is expected to grow more quickly than in the Hovey numbers despite the weaker presumed relationship between revenue and the economy. Projected spending also grows a little bit more slowly in each of these states because education enrollment is expected to grow far more slowly than in the Hovey numbers, more than offsetting faster Medicaid spending growth in these numbers.

Sensitivity Analysis

Many alternative assumptions would lead to significantly greater pressure on state and local governments. Is it plausible, for example, to assume that states will not increase real per-pupil spending on elementary and secondary education given policies adopted in recent years to reduce class sizes, raise standards, raise requirements for teacher qualifications, and reduce social promotion? Each of these policies is likely to increase spending, and there is ample indication of public support for increased real spending on K-12 education. In the 1990s, real per-pupil spending increased by more than 1 percent annually; in the 1980s, spending increased by approximately 3.3 percent annually; and in each of the three preceding decades average annual real per-pupil spending increased by

more than 2.4 percent. Similarly, it may not be plausible to assume no increases in real per-pupil higher education spending.

These and other issues motivate several alternative sets of projections:

- If state and local governments increase real per-pupil spending by 1.5 percent annually (rather than 0 percent, as assumed in the base-case projections), then the average projected gap would increase from 3.4 percent to 6.2 percent, 49 of 50 states would face gaps, and Tennessee would face the worst gap, at 12.4 percent of revenue.

- If states increase *both* real per-pupil elementary and secondary education spending and real per-pupil higher education spending by one percent, results would be similar, although the distribution would differ across states: an average gap of 6 percent, and 49 states facing gaps.

- On the other hand, if states are able to stem sales tax losses related to Internet taxation immediately, the average gap would fall from 3.4 percent to 2.4 percent and 39 states would face gaps rather than the 44 states in the base case.

- If Medicaid growth were slower by one percentage point across the board than assumed in the base case, the average gap would be reduced from 3.4 percent to 2.1 percent, only 37 states would face gaps, and the worst gap would be reduced from 9.7 percent in Tennessee to 8.0 percent in Nevada.

- Finally, if state income taxes were modified to raise income tax elasticity from an average value of 1.13 to 1.23, the average gap would fall from 3.4 percent to 2.8 percent and 40 states rather than 44 states would face gaps. This of course would not change the outlook in states that do not have an income tax.

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